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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,990	03/05/2002	Ron Rymon	02/23292	4478

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EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/087,990	Applicant(s) RYMON, RON	
	Examiner Phuong N. Hoang	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. Claims 1 – 26 are pending for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1 – 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. Claim 1 merely recites an apparatus comprising arrangement of nodes, partitions, pattern recognition unit. These components are software components, i.e., computer program per se. Such claimed matter, which is non-functional descriptive material per se, is not statutory because it is not a physical “thing” nor a statutory process as there are not “act” being performed. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the computer’s functionality. In contrast, a claimed computer-readable medium encoded with a computer program defined structural and functional interrelationships between the computer program and the medium which permit the computer program’s functionality to be realized, and is thus mandatory.

5. Claims 2 - 24 are dependent claims of claim 1. They are rejected for the same reason above.

6. Claim 26 merely recites an reverse engineering tool comprising arrangement of nodes, partitions, pattern recognition unit. These components are software components, i.e., computer program per se. Such claimed matter, which is non-functional descriptive material per se, is not statutory because it is not a physical "thing" nor a statutory process as there are not "act" being performed. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the computer's functionality. In contrast, a claimed computer-readable medium encoded with a computer program defined structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus mandatory.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 1, 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. As to claim 1, it is not clearly understood that the phrase "wherein said nodes share relationships with same ones of with a predetermined number of nodes in a second partition" means (it is the nodes in the first partition has relationships with a predetermined number of nodes in the second partition).

10. As to claim 26, the pre-amble recites a reverse engineering tool. It is not clearly that if the claim belongs to process, machine, manufacture, or composition of matter. For examining purpose, examiner treats it as a software claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 1 – 12, 17 – 19, and 25 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher, US Pub. No. 2002/0013847.**

13. **As to claim 1**, Fisher teaches pattern recognition apparatus for grouping nodes according to relationships with other nodes, the apparatus comprising:

an input for receiving an arrangement of nodes, said arrangement comprising at least two partitions of said nodes and with predetermined relationships between nodes across said partitions (allocate resources for end-users, 0044, 0046, 0053, 0055), and a pattern recognition unit associated with said input, for automatically (automatically, 0046) finding relationship patterns amongst said nodes using pattern recognition the nodes and said relationships, thereby to form at least one group from nodes of a first of said partitions, wherein said nodes share relationships with a predetermined number of nodes in a second partition (relationship between end-users with predefined groups of resources, 0055).

Fisher does not explicitly refer the nodes for each partitions.

It would have been obvious to one of ordinary skill in the art the time the invention was made to recognize that the network resource management recognize the end-users or resources can be called as nodes because they have same roles and relationships as nodes.

14. **As to claims 2 and 3**, Fisher teaches wherein said nodes in said first partition are users of a network (end-users, 0055), said nodes in said second partition are resources (network resources) of said network and said relationships are access permissions.

15. **As to claim 4**, Fisher teaches wherein said relationships further comprise user access permission levels for respective resources (0051).
16. **As to claim 5**, see rejection for claim 3 above.
17. **As to claim 6**, Fisher teaches wherein said nodes in said first partition are entities having attributes (set of values, 0051) and said nodes in said second partition represent said attributes and said relationships represent a respective user possessing a respective attribute.
18. **As to claim 7**, Fisher teaches wherein said pattern recognition unit is associated with a search engine operable to use a search tree (hierachies, 0056) to begin with a single resource and its associated users, and iteratively to add resources and remove users not having a predefined relationship with said iteratively added resources, to meet a resource number, or a user number constraint (0046, 0053).
19. **As to claims 8 and 9**, Fisher teaches wherein said search engine is operable to use a homogeneity (homogenous network, resources, 0013, 0053) measure to determine whether to consider a candidate grouping in said search.

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20. **As to claims 10 and 11**, Fisher teaches wherein said search engine is operable within said iterative stages to add further resources common to a current set of users (0046).

21. **As to claim 12**, Fisher teaches search engine is operable to expand all resources (create resource, 0053).

22. **As to claim 17**, Fisher teaches wherein said pattern recognition unit is operable to use said pattern recognition within an iterative tree (hierachies, 0056) searching process.

23. **As to claim 18**, Fisher teaches wherein said pattern recognition unit is operable to insert said groupings as an intermediate partition amongst said nodes, thereby to redefine said relationships through said groupings (create resource, 0047).

24. **As to claim 19**, Fisher teaches wherein said nodes are arranged into three partitions, an intermediate one of said partitions comprising predetermined relationship dependent groupings of at least some of the nodes in a first of said partitions, said pattern recognition unit being operable to use said pattern recognition to add new groups to said intermediate partition (0053, 0055).

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25. **As to claim 25**, this is the method claim of claim 1. See rejection for claim 1 above.

26. **As to claim 26**, this is the software claim of claim 1. See rejection for claim 1 above.

27. **Claims 20, 22 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher, US Pub. No. 2002/0013847 in view of Brown, US patent no. 5,941,947.**

28. **As to claim 20**, Fisher does not explicitly teach the step of wherein the input is associated with a graphical expositor which presents the input in a graph.

Brown teaches the steps of wherein the graphical expositor presents the input in a graph (acyclic graphs, col. 12 lines 51 – col. 13 line 38).

It would have been obvious to one of skill in the art at the time the invention was made to combine the teaching of Fisher and Brown's system because Brown's graph would provide the tree structure with partitioned groups on different levels for easy input to the tree structure of Fisher's system to control the network nodes partitions.

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29. **As to claims 22 - 23**, Brown teaches the steps of wherein the graphical expositor is further operable to partition the graph into sub-graphs (acyclic graphs, col. 12 lines 51 – col. 13 line 38), each of the sub-graphs itself being a mentioned graph having at least two partitions, sub-graphs being limited to it subset of the nodes in one of the partitions, and further comprising all the nodes in the other partition that are linked thereto, and wherein the pattern recognition unit is further operable to perform groupings on each of the sub-graphs, and then to merge the results into a full graph.

30. **As to claim 24**, see rejection for claim 21 above.

31. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher, US Pub. No. 2002/0013847 in view of Brown, US patent no. 5,941,947, and further in view of Shandony, US patent no. 6,675,261.**

32. **As to claim 21**, Fisher modified by Brown does not the user would manually interact using graphical to manually assign modify the groupings discovered by the pattern recognition engine.

Shandony teaches the step of wherein the graphical expositor is user interactive to manually (IF statff can assign Add new users, col. 7 lines 45 – 50) assign modify the groupings discovered by the pattern recognition engine.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Shandony to Fisher's system because it provides an alternate option to manually modify the grouping as specific need.

Allowable Subject Matter

33. Claims 13 – 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph
May 1, 2006



WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER